***The Effect of Growth Regulator Concentration on Growth and Yield of Mustard Plants (Brassica juncea* L.)**

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ABSTRACT

Increased mustard crop production can be maximized by applying PGR. Not all PGR can work optimally so they need the right concentration and content. The aims of the research is to find out the concentration of PGR atonic and shallot extract and which PGR is the best for the growth and yield of mustard plants. The research was carried out at the Experimental Garden of the Faculty of Agriculture UPN Veteran Yogyakarta from April to June 2024. The research method used a single-factor Completely Random Design (CRD) with 7 treatments including concentrations of growth regulators: no PGR, shallot extract 20%, 40%, 60% and atonic 1 mL/L, 2 mL/L, 3 mL/L. The data was analyzed using ANOVA at the level of 5% and it was continued with the Least Significance Different (LSD) at the level of 5%. The results showed that the concentration of natural PGR of shallot extract and synthetic PGR of atonic significantly on leaf length 20 and 30 DAT, number of leaves 10 and 20 DAT, and root volume. Concentration 40% shallot extract is able to increase the growth and yield of mustard plants is in the parameters of leaf length, number of leaves, fresh weight, harvest index and root volume.

Keywords: *mustard greens, PGR concentration, shallot extract, atonic*